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PATENT
Attorney Docket No.: 17682A-006810US
Client Reference No.: 151

Assistant Commissioner for Patents
Washington, D.C. 20231

On 8/27/01

TOWNSEND and TOWNSEND and CREW LLP

By: Jennifer K. Hardi

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Michael W. Reed et al.

Application No.: 09/876,830

Filed: June 6, 2001

For: FLUORESCENT QUENCHING
DETECTION REAGENTS AND
METHODS

Examiner:

Art Unit: 1656

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references can be found in Application No. 09/457,616, filed December 8, 1999 (Attorney Docket No. 17682A-006800). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and

no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



William B. Kezer
Reg. No. 37,369

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 6

Complete if Known

Application Number	09/876,830
Filing Date	June 6, 2001
First Named Inventor	Michael W. Reed
Group Art Unit	1656
Examiner Name	Unassigned
Attorney Docket Number	17682A-006810US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	1	5,304,645		Klein et al.		
	2	4,954,630		Klein et al.		
	3	5,455,157		Hinzpeter al.		
	4	5,830,653		Froehler et al.		
	5	6,028,183		Lin et al.		
	6	6,007,992		Lin et al.		
	7	2,264,303		Dickey	12/02/41	
	8	4,358,535		Falkow et al.	11/09/82	
	9	4,868,105		Urdea et al.	09/19/89	
	10	5,124,246		Urdea et al.	06/23/92	
	11	5,210,015		Gelfand et al.	05/11/93	
	12	5,328,824		Ward	07/12/94	
	13	5,451,463		Nelson et al.	09/19/95	
	14	5,492,806		Drmanac et al.	02/20/96	
	15	5,512,667		Reed et al.	04/30/96	
	16	5,525,464		Drmanac et al.	06/11/96	
	17	5,556,752		Lockhart et al.	09/17/96	
	18	5,696,251		Arnold, Jr. et al.	12/09/97	
	19	5,801,155		Kutyavin et al.	09/01/98	
	20	5,824,796		Petrie et al.	10/20/98	
	21	5,846,726		Nadeau	12/08/98	
	22	5,876,930		Livak et al.	03/02/99	
	23	5,942,610		Nelson et al.	08/24/99	

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	24	5,952,202		Aoyagi et al.	09/14/99	
	25	5,502,177		Matteucci et al.	03/96	

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	26	PCT	WO 00/06771		McGall et al.	02/10/00		<input type="checkbox"/>
	27	Int'l	90/14353			11/29/90		<input type="checkbox"/>
	28	Int'l	92/10588			06/25/92		<input type="checkbox"/>
	29	Int'l	96/17957			06/13/96		<input type="checkbox"/>
	30	Int'l	99/40226			08/12/99		<input type="checkbox"/>
	31	Int'l	99/51621			10/14/99		<input type="checkbox"/>
	32	EP	00/70685			01/26/83		<input type="checkbox"/>
	33	PCT	WO 97/39008		Tyagi and Kramer	10/23/97		

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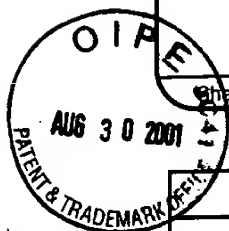
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Sheet 3 of 6

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	34	Nonisotopic DNA Probe Techniques, Academic Press, Inc., San Diego 1992, pp. 311-352	<input type="checkbox"/>
	35	Tyagi et al., <i>Nat. Biotech.</i> , 16:49-53 (1998)	<input type="checkbox"/>
	36	Nazarenko et al., <i>Nucl. Acid Res.</i> , 25:2516-2521 (1997)	<input type="checkbox"/>
	37	Lee et al., <i>Nucl. Acid Res.</i> , 21:3761-3766	<input type="checkbox"/>
	38	Rothman et al., <i>Biorg. Med. Chem. Lett.</i> , 9:509-512 (1999)	<input type="checkbox"/>
	39	Matayoshi et al., <i>Science</i> , 247:954-958 (1990)	<input type="checkbox"/>
	40	Li et al., <i>Bioconj. Chem.</i> , 10:241-245 (1999)	<input type="checkbox"/>
	41	Hawthorne et al., <i>Anal. Biochem.</i> , 253:13-17 (1997)	<input type="checkbox"/>
	42	Bickett et al., <i>Ann. N.Y. Acad. Sci.</i> , 732:351-355 (1994)	<input type="checkbox"/>
	43	White et al., <i>Anal. Biochem.</i> , 268:245-251 (1999)	<input type="checkbox"/>
	44	Petrie et al., <i>Bioconj. Chem.</i> , 3:85-87 (1992)	<input type="checkbox"/>
	45	Reed et al., <i>Bioconj. Chem.</i> , 2:217-225 (1991)	<input type="checkbox"/>
	46	Pon et al., <i>Nucl. Acids Res.</i> , 25:3629-3635 (1997)	<input type="checkbox"/>
	47	Haugland et al., Handbook of Fluorescent Probes and Research Chemicals, Sixth Edition, Eugene, OR., pp. 235-236 (1996)	<input type="checkbox"/>

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Sheet 4 of 6

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Group Art Unit	1656
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Attorney Docket Number	17682A-006810US



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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	48	Hirshberg et al., <i>Biochem.</i> , 37:10381-10385 (1998)	<input type="checkbox"/>
	49	Wiegant et al., <i>Cytogenet. Cell Genet.</i> , 63:73-76 (1993)	<input type="checkbox"/>
	50	Gamper et al., <i>Nucleic Acids Res.</i> , 21:145-150 (1993)	<input type="checkbox"/>
	51	Lukhtanov et al., <i>Bioconjugate Chem.</i> , 7:564-567 (1996)	<input type="checkbox"/>
	52	Eisen, <i>Methods of Enzym.</i> , 303:179-205 (1999)	<input type="checkbox"/>
	53	Boger et al., <i>J. Org. Chem.</i> , 52:1521- (1987)	<input type="checkbox"/>
	54	Uhlmann et al., <i>Angew. Chem. Inter. Ed.</i> , 37:2796-2823 (1998)	<input type="checkbox"/>
	55	Mayfield et al., <i>Anal. Biochem.</i> , 268:401-404 (1998)	<input type="checkbox"/>
	56	Holland et al., <i>Proc. Acad. Sci.</i> , 88:7276-7280 (1991)	<input type="checkbox"/>
	57	Wittwer et al., <i>Biotechniques</i> , 22:176-181 (1997)	<input type="checkbox"/>
	58	Baker et al., <i>J. Chem. Soc.</i> , 170, 173 (1950)	<input type="checkbox"/>
	59	Forchiassin et al., <i>J. Heterocyc. Chem.</i> , 20:493-494 (1983)	<input type="checkbox"/>
	60	Seela et al., <i>J. Chem. Soc., Perkin Trans.</i> , 1:479-488 (1999)	<input type="checkbox"/>
	61	Innis et al. (eds.), <i>PCR Protocols</i> , pp. 1-27, Academic Press, San Diego (1990)	<input type="checkbox"/>

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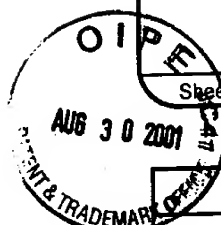
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Sheet 5 of 6

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Application Number	09/876,830
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First Named Inventor	Michael W. Reed
Group Art Unit	1656
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	62	Hames et al. (eds.), <i>Nucleic Acid Hybridization: A Practical Approach</i> , pp. 47-110 IRL Press, Oxford (1985)	<input type="checkbox"/>
	63	Van Ness et al., <i>Nucleic Acids Res.</i> , 19:5143-5151 (1991)	<input type="checkbox"/>
	64	Sambrook et al., <i>Molecular Cloning: A Laboratory Manual</i> , pp. 11.45-11.57, Second Edition, Cold Spring Harbor Laboratory Press (1989)	<input type="checkbox"/>
	65	Ausubel et al., <i>Current Protocols in Molecular Biology</i> , John Wiley & Sons (1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996)	<input type="checkbox"/>
	66	Freifelder, <i>Physical Biochemistry</i> , pp. 700-712, Second Edition, Freeman & Co., San Francisco (1982)	<input type="checkbox"/>
	67	Whitcombe, D. et al., <i>Nat. Biotech.</i> , 17:804-807 (1999)	<input type="checkbox"/>
	68	Cardullo et al., <i>Proc Natl. Acad. Sci. USA</i> , 85:8790-8794 (1988)	<input type="checkbox"/>
	69	Du et al. PhotochemCAD. A Computer-Aided Design and Research Tool in Photochemistry, <i>Photochem. Photobiol.</i> , 68:141-142 (1998)	<input type="checkbox"/>
	70	Nielsen et al., <i>Science</i> , 254:1497-1500 (1991) bicyclo DNA oligomers	<input type="checkbox"/>
	71	Bolli et al., <i>Nucleic Acids Res.</i> , 24:4660-4667 (1996)	<input type="checkbox"/>
	72	Gamper et al., <i>Biochem</i> , 36:14816-14826 (1997)	<input type="checkbox"/>
	73	Milesi et al., <i>Methods Enzym.</i> , 313:164-73 (1999)	<input type="checkbox"/>
	74	<i>Ann Phys.</i> , 2:55-75 (1948)	<input type="checkbox"/>
	75	Livak. <i>PRC Methods Appl.</i> , 5:357-362 (1995)	<input type="checkbox"/>

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	76	Ibrahim et al., <i>Mol. Cel. Probes</i> , 11:143-147 (1997)	<input type="checkbox"/>
	77	Demidov, <i>PNAS</i> , 92:2637-2641 (1995)	<input type="checkbox"/>
	78	Huang, <i>J. Org. Chem.</i> , 58:6235-6246 (1993)	<input type="checkbox"/>
	79	Seela, XIII International Round Table, Nucleosides, Nucleotides and Their Biological Applications, September 6-10, 1998, Poster 279	<input type="checkbox"/>
	80	Mayfield, <i>Biorg. Med. Chem. Lett.</i> , 9:1419-1422 (1999)	<input type="checkbox"/>
	81	Cantor et al., <i>Biopolymers</i> , 9:1059-1070 (1970)	<input type="checkbox"/>
	82	ASANUMA et al., "Photo-Responsive Oligonucleotides Carrying Azobenzene in the Side-Chains", <i>Tetrahedron Letters</i> , 39: 9015-9018 (1998)	
	83	"98 Catalogue", 1998 Amersham Pharmacia Biotech S-Hertogenbosch, Netherlands XP002172887, page 127, FluoroBlue	
	84	SOKOL et al, Real time detection of DNA-RNA hybridization in living cells", <i>Proc. Nat'l. Acad. Sci.</i> , 95:11538-11543 (September 1998).	

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